



```

if (node == null) {
    sb.append(".");
    sb.append(" ");
    return;
}

sb.append(node.val);
sb.append(" ");

helper(node.left, sb);
helper(node.right, sb);
}

```

a-b-d-j-○-○-○-c-○-○-
 c-f-h-○-○-i-○-○-g-○-
 ○-

a, b, d, j, , , , e, j, c, f, h, j,
 i, , , g, i, ,

10:08 - 10:20

```

public TreeNode deserialize(String data) {
    if (data.length() == 0) {
        return null;
    }

    String[] darray = data.split(" ");

    Stack

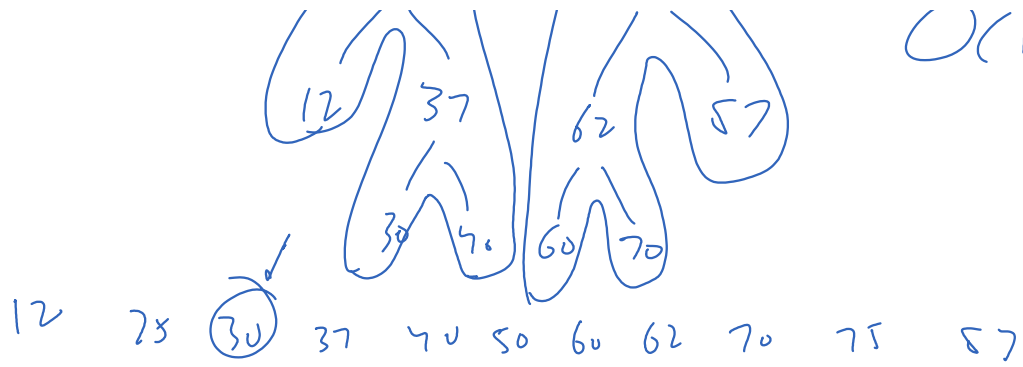
```

10:54 - 11:00
 Morris Traversal

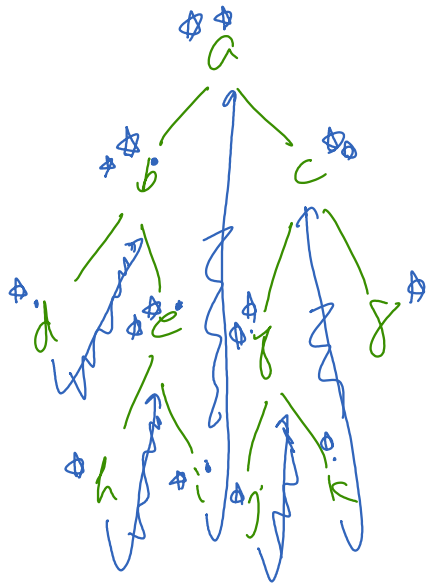


③
 BST
 $O(1)$

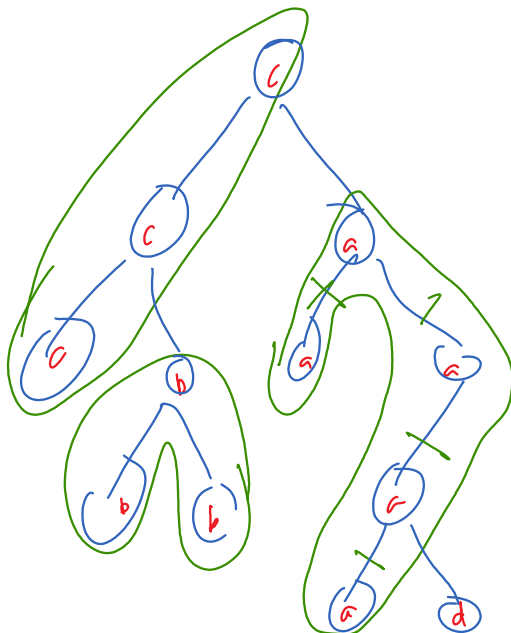
$O(1)$



~~LNR~~



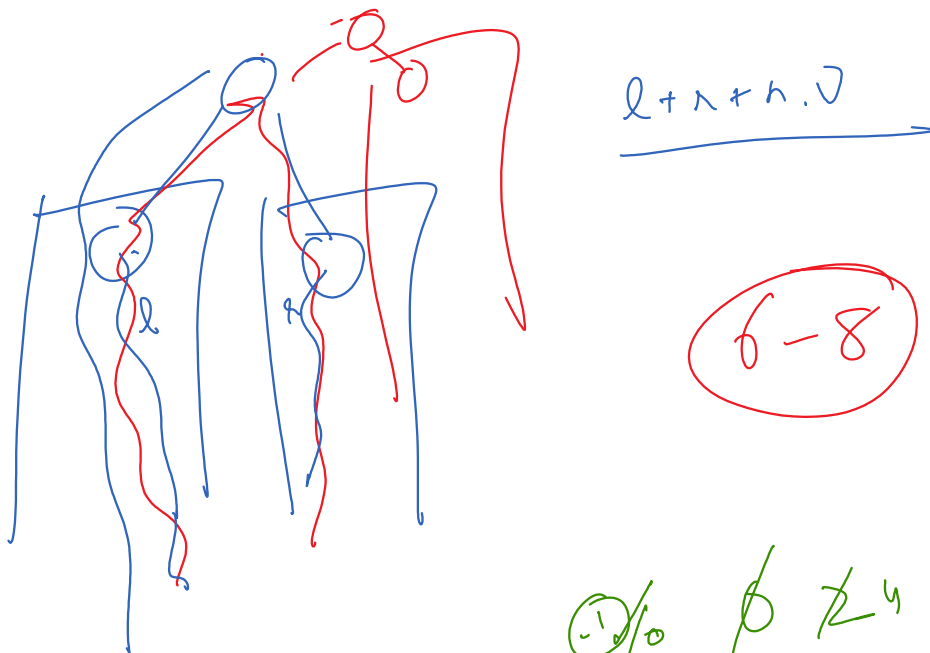
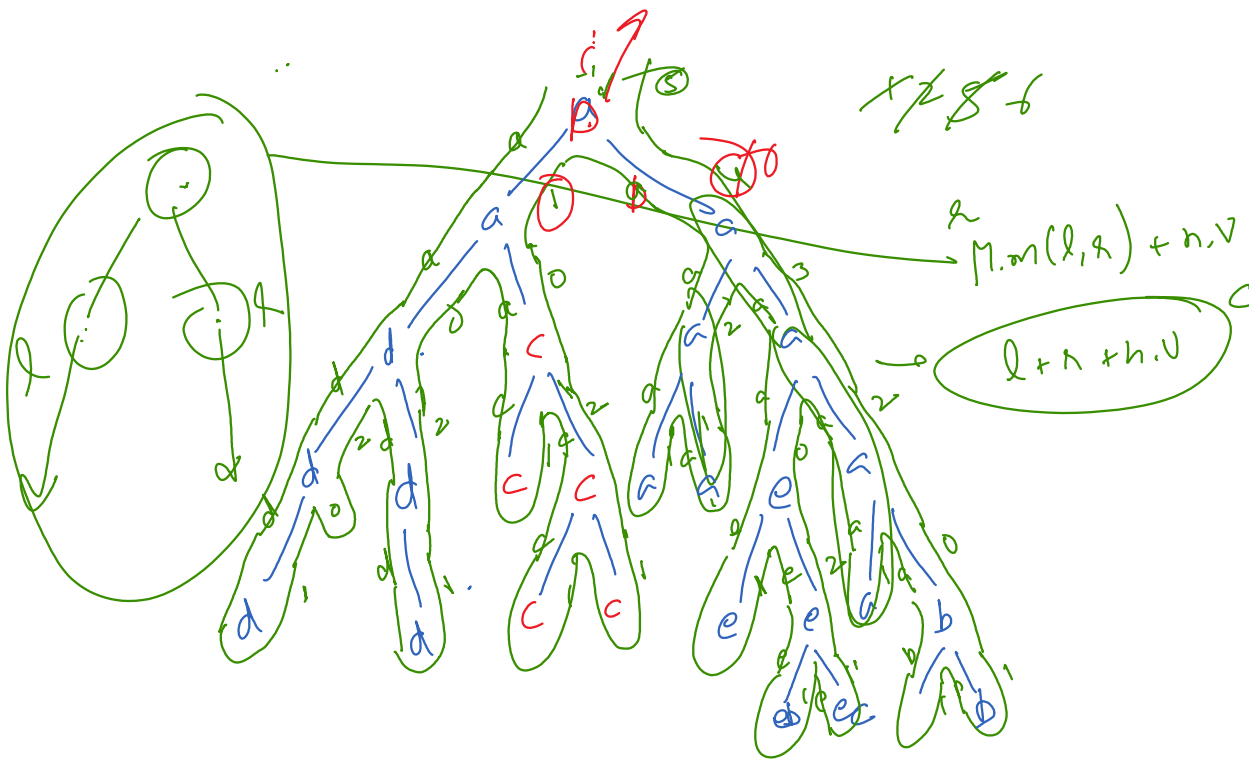
d
b
c
h
e
i
a
j
k
c
g



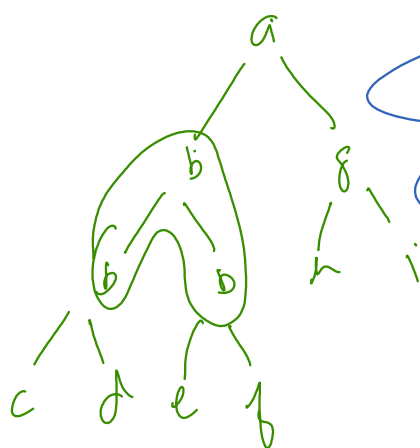
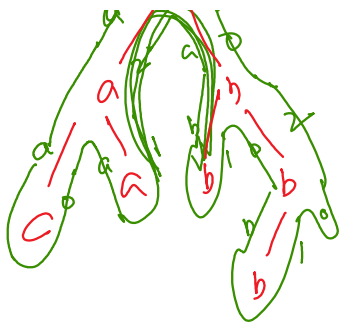
4

11:10-11:20

change \rightarrow longest path passing through me
 return \rightarrow longest path starting at me



Print
Traverse



JS & Recursion
JS & Node